

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
NONRULE POLICY DOCUMENT

Title: **Approval of Alternative Emission Factors**

Identification Number: **Air-014-NPD**

Date Originally Adopted: **October 10, 1997**

Dates Revised: **None**

Other Policies Repealed or Amended: **None**

Brief Description of Subject Matter: **Procedures and validation requirements for approval of alternate emission factors**

Citations Affected: **326 IAC 2-6-4(4)(E)(ii)**

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Background

Emission factors are used to calculate potential emissions for permitting purposes and estimate actual emissions for billing. With the exception of the emissions statement rule, 326 IAC 2-6-4(4)(e)(ii), which requires the use of emission factors from AP-42 or a department approved alternative, there are no provisions which mandate the specific source of an emission factor. Traditionally, all calculations for permitting purposes are made using emission factors from AP-42, (the) Compilation of Air Pollutant Emission Factors, (AP-42) which has been produced by the U.S. EPA Office of Air Quality Planning and Standards. The EPA has compiled and rated emission factors in this document based upon available information, including stack tests and engineering estimates. The EPA also maintains other sources of emission factors which are considered equivalent to AP-42. An alternate emission factor is defined as one which is not found in AP-42 or other equivalent source (an NSPS/NESHAP or other EPA database of emission factors).

This non-rule policy outlines the requirements for approval of an alternate emission factor; *sources may wish to utilize an alternate emission factor to provide a more accurate estimation of emissions.*

Policy

The following are guidelines for the request and approval of an alternate emission factor. An alternate emission factor is defined as one which is not found in AP-42 or other equivalent source (an NSPS/NESHAP or other EPA database of emission factors); as well, an alternate emission factor may be developed if the source believes that the published factor does not

appropriately represent their specific process, operation or pollution control equipment efficiency. A source may use an alternate emission factor (AEF) in calculations provided the following criteria are met:

A. The AEF must be determined on a single facility basis. It is not appropriate to use an AEF developed for another facility unless the facilities are completely identical, both in design and method of operation. For identical facilities, include a detailed discussion of operating conditions and a description of the installations.

Alternatively, if a source is seeking to use an AEF for a construction permit and is basing the AEF upon testing conducted at a similar facility in another state or a pilot plant, the construction permit should contain a requirement to conduct testing to validate the AEF.

B. The AEF must be supported by reference method test data. The reference method testing must meet the requirements of 326 IAC 3-2.1, as applicable. This requires three (3) complete test runs conducted at 95-100% of maximum capacity under conditions representative of normal, using test methods acceptable to the commissioner.

C. For new AEF's, the source should submit a request to the Department detailing why the AEF is appropriate. The request for an AEF should contain, at a minimum, the following:

1. Description of process;
2. Description of control devices/control technology and relevant operating parameters;
3. Raw materials used in process which may impact emissions (scrap, oily, clean treated, percentages of raw materials);
4. Discussion of how the process will operate during the AEF determination;
5. Identification of the standard AP-42 (or equivalent source) emission factor for the process/control devices in operation;
6. Discussion of why the standard AP-42 emission factors are not appropriate to use in this situation; if the source is requesting a new AEF (to replace an AEF granted), a discussion of why a new AEF is being requested;
7. Test protocol pursuant to 326 IAC 3-2.1-2;
8. Discussion of any modeling conducted.

D. For existing sources using an AEF which has not been reviewed and approved by OAM for emissions statements or billing, we reserve the right to request that the source complete validation testing if feasible.

Upon completion of the AEF testing, the Compliance Data Section will review the report and prepare a summary report to the appropriate IDEM section (e.g., permits, data support) acknowledging the AEF as valid or invalid with supporting information. *All AEF's will be reviewed and more than one test series may be required if the proposed AEF would conflict with all available information.*

All AEF requests will be reviewed by IDEM. If a source in a local agency requests an AEF, the local agency personnel should coordinate with IDEM to insure that all the necessary information is received.

IDEM will maintain records of all AEFs granted. This information will be available for public inspection during normal business hours by contacting the Compliance Data Section. The records will contain information necessary to substantiate the AEF with the exception of confidential information pursuant to 326 IAC 17.

If you have any questions regarding the information contained in this non-rule policy document, you may contact Ms. Ann McIver at (317) 232-8411.